Education for fall prevention in older adults living in long-term care facilities

https://doi.org/10.56238/sevened2024.007-041

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ABSTRACT

Falls are an important cause of functional decline and morbidity and mortality in the elderly and their incidence is higher with advancing age and in institutionalized patients. Preventive measures are essential to avoid accidents caused by falls, and health education can make a significant contribution to prevention. This chapter discusses the importance of health education aimed at preventing falls in elderly people living in long-term care institutions (LTCIEs). These institutions are environments where the prevention of falls takes on great importance due to the vulnerability of the residents. Effective strategies in these places include periodically assessing the risk of falls, adapting the environment to make it safer and promoting physical activities to strengthen muscles and balance. Health education plays a crucial role in preventing falls in the elderly, both for health professionals and for the elderly themselves and their caregivers. Training health professionals to systematically assess the risk of falls and implement preventive measures is fundamental. In addition, promoting awareness among the elderly about the risks of falls and providing practical guidelines for prevention is essential to reduce the impact of these events on health and quality of life.

Keywords: Elderly, Fall Accidents, Health Education, Long-stay Institution for the Elderly, Risk Factors.

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INTRODUCTION

In the national scenario, the recognition of the theme of falls in the elderly as a priority was pointed out by the Ministry of Health, and should boost scientific production on this important health problem. It is essential to identify and discuss issues related to the new demands of society, such as those of a population with an increasing contingent of elderly people (GIOVANELLA, 2012).

The process in which an elderly person starts to live in Long-Term Care Institutions for the Elderly (LTCF), when they can no longer live independently in their own residence - the so-called institutionalization -, is a topic of current discussion (MEDEIROS et al., 2020). LTCFs need to be adapted and safe environments, with regular review of procedures and promotion of educational actions aimed at prevention (LIMA, 2015).

Institutionalized older adults have a higher risk of suffering falls because they are more prone to functional decline, but those who are moderately dependent are also at greater risk than independent and immobilized older adults, since they are able to walk, but with limitations that can impair gait (FERREIRA; YOSHITOME, 2010). Therefore, it is critical that they and their professional caregivers take preventive measures to reduce the risk of these accidents (GOOD LUCK, 2021; SANTOS, 2019).

Thus, the prevention of falls in older people is an interdisciplinary priority in the area of Health. Multidisciplinary strategies that address specific risk factors, including environmental interventions and promoting physical activity, are key to mitigating the impact of falls on the elderly population (MOREIRA et al., 2020). Both hospitalization and institutionalization can have a great impact on the quality of life of the elderly, especially due to the fact that they are removed from their family environment and present some degree of functional dependence. Therefore, the environment needs to be adapted to make it safer and educational actions aimed at preventing falls should be carried out (LIMA, 2015).

In this chapter, the importance of education aimed at the prevention of falls in elderly people living in long-term care institutions will be addressed.

PREVALENCE AND MORBIDITY OF FALLS IN THE ELDERLY

The World Health Organization's (WHO, 2021) definition of falling is an event in which a person inadvertently falls to the ground, or to another level below the ground. According to this definition, falls, trips, and slips can occur at the same level as the person or at height, also including syncopal events. It is also considered a fall when the patient is found on the ground, or when, during the displacement, he needs support, even if he does not reach the ground. The fall can occur from one's own height, from the stretcher/bed or from seats (wheelchair, armchairs, chairs, toilet chair, bathtub), including toilet (BRASIL, 2013).

Falls occur annually in 30% of adults over 65 years of age and in 50% of those over 80 years of age (APPEADU; BORDONI, 2023; MIRANDA et al., 2017), for which the consequences are more severe, despite the efforts of researchers and health professionals to understand, assess and manage their risks and causes. In addition to personal suffering, falls and fall-related injuries are a serious public health problem due to their association with subsequent morbidity, disability, hospitalization, institutionalization, and mortality (DABKOWSKI et al., 2022). The related social and economic consequences are substantial and supported by evidence in the scientific literature (SCHOBERER et al., 2022).

Thus, falls in the elderly are a topic of great interest in the scientific community today and there are several studies that address this issue. Prevalence and factors associated with falls in the elderly have been investigated in several studies (CUNHA; LOUREIRO, 2014; BIRTH; TAVARES, 2016; LIMA et al., 2017; SANTOS et al., 2019). These studies were carried out in Brazil, and showed a high prevalence of falls among the elderly and demonstrated that the factors associated with these accidents are modifiable and avoidable.

On the other hand, there are several literature reviews published on falls and associated factors in community-dwelling older adults (MARTINS et al., 2022; SILVA et al., 2019), as well as primary studies involving older adults from a community center (ALMEIDA et al., 2022), from basic health units (NEIVA; MOREIRA, 2022; PINHO et al., 2012), in hospitalized older adults (CABRAL et al., 2016), older adults in a comprehensive care center (PIMENTA et al., 2017) and institutionalized older adults (SANTOS; MIRANDA, 2021; BATISTA et al., 2021; GOMES et al. 2014).

There are studies specifically focusing on the prevention of falls in community-dwelling older adults (SILVA et al., 2017), but no studies were found addressing preventive health education actions aimed at institutionalized older adults in Brazil.

International research studies involving institutionalized older adults were recently carried out (KULAL et al., 2023), evaluating predictors of falls in residents, but health education for the prevention of these events in LTCFs is not addressed.

The distribution of causes of falls varies between institutionalized and non-institutionalized older adults (FERREIRA et al., 2019). In the elderly in institutions such as nursing homes and nursing homes, falls are often attributed to gait disturbances, balance, vertigo, and mental confusion. On the other hand, older adults who do not live in institutions tend to fall more due to environmental problems, followed by weakness/balance and gait disorders, dizziness/vertigo, postural change/orthostatic hypotension, central nervous system injury, syncope, and other causes (FALSARELLA; GASPAROTTO; COIMBRA, 2014).

These differences in the distribution of causes of falls have significant implications for prevention interventions in the elderly. In long-term care facilities, it is crucial to focus on measures that directly address gait, balance, and cognitive disorders, such as specific exercise programs, monitoring of medication that can affect balance, environmental adaptations to promote safety, and interventions to prevent mental confusion.

On the other hand, for older adults living in their own homes, emphasis should be placed on strategies to improve the safety of the home environment, such as removing obstacles, adequate lighting, and installing handrails, as well as exercise programs to strengthen muscles and improve balance. In both cases, the accurate identification of the specific causes of falls in each group of older adults allows the implementation of more targeted and effective interventions aimed at reducing the risk of falls and their negative consequences, such as serious injuries and loss of independence.

FACTORS ASSOCIATED WITH FALLS IN THE ELDERLY

Knowing the profile and factors associated with the occurrence of falls among the elderly is essential for health professionals to develop effective actions to prevent, monitor and control these events. By understanding the key elements that contribute to falls, such as balance problems, muscle weakness, use of certain medications, specific health conditions, and inappropriate environments, providers can adopt targeted and personalized approaches for each patient (REIS et al., 2014). This includes implementing exercise programs to improve balance and strength, reviewing medications to reduce side effects that increase the risk of falling, promoting safe environments, and educating older adults and their caregivers about preventive measures.

In addition, the constant monitoring of the risk profile of each elderly person allows for periodic adjustments in prevention strategies, ensuring a dynamic and efficient approach over time. Active control of factors associated with falls not only reduces the number of incidents, but also contributes to maintaining the independence, quality of life, and general well-being of the elderly. Therefore, investing in detailed knowledge about the profile and factors related to falls is essential to promote the health and safety of this vulnerable population.

Preventing falls in the elderly requires consideration of several recognized risk factors or predisposing factors. According to Tissot and Vergara (2023, p. 26), "more important than the cause of a fall is the identification of the risk factor, as the cause is a past event in which it is not possible to intervene, while the risk factors are still present".

The factors were classified into three distinct risk factors for falls: intrinsic, behavioral, and extrinsic (MORSCH; MYSKIW; MYSKIW, 2016). Intrinsic risk factors are physical and psychological factors that are specific to the individual himself, while extrinsic factors are related to the environment.

Intrinsic factors are associated with aging, which brings with it a series of physiological changes, such as decreased vision, hearing, body stability, joint changes, reduced muscle strength, and gait changes (LOPES et al., 2019). These changes can increase the risks of accidents and falls due to the decreased ability of the body to react quickly and defensively. This highlights the importance of understanding the physical changes associated with aging and implementing appropriate preventive measures in LTCFs. This includes, in addition to creating safe environments, exercise programs for muscle strengthening and balance, as well as educational strategies to raise awareness about the risks of falls and accidents.

Environmental factors are important because the home or the spaces around it may be inadequate, such as improper architectural designs, slippery floors and stairs and/or with changes in relief, loose carpets on the floor, insufficient lighting and inaccessible switches, absence of grab bars in specific places, presence of furniture obstructing passages, among others (TISSOT; VERGARA, 2016). Behavioral factors are based on activities, such as rushing, use of multiple medications, alcohol intake, or lack of physical activity. Medications represent the main preventable behavioral risk factor for falls in the elderly (LOPES et al., 2022).

On the other hand, factors within the health and social care system, such as the flow of information between professionals, have also been reported. In addition, older people with lower socioeconomic status have unique risk factors associated with social determinants of health, which may increase the risk of falls. Some risk factors for accidents cannot be changed (such as age), but many others are modifiable. For this reason, preventive interventions focus on risk factors and triggers of falls in the elderly.

The history of falls is one of the strongest predictors of a future fall in the elderly (SOUSA-ARAÚJO et al., 2019). This suggests that primary prevention plays a crucial role in reducing the risk of falls in this population. By identifying and intervening early on risk factors such as balance problems, muscle weakness, and unfavorable environmental conditions, it is possible to significantly mitigate the risk of falls. In addition, exercise programs to improve balance and muscle strength, review of medications to avoid side effects that may increase the risk of falls (TIEDEMANN; SHERRINGTON; LORD, 2013). Another important risk factor at this stage of life is the frequent use of drugs of certain drug classes, such as benzodiazepines, barbiturates, antidepressants, anticonvulsants, antipsychotics, antimuscarinics, antiarrhythmics, digitalis, antihistamines, muscle relaxants, oral hypoglycemic agents, diuretics, vasodilators, laxatives, often in combination, leading to another geriatric syndrome, polypharmacy, that is, the use of five or more medications simultaneously (BRASIL, 2013).

The second strongest predictor of falls is gait or balance abnormality (FALSARELLA; GASPAROTTO, COIMBRA, 2014). At the population level, the onset of decline in balance ability

and other measures of physical functioning is usually observed between the ages of 40 and 60. The prevalence of other risk factors for falls, such as syncope, dizziness, and chronic conditions, also increases after the age of 50, particularly in postmenopausal women. These findings suggest that middle age may already represent a critical phase of life for falls prevention interventions. These interventions should therefore be prior to the 50 to 60 age stage.

The risk of falling increases as the number of risk factors increases. The risk of falling in a year doubles for each added risk factor. It starts at 8% without risk factors and increases up to 78% with four risk factors (APPEADU; BORDONI, 2023). On the other hand, Duarte (2009) points out that the so-called frailty syndrome is an independent predictor of falls, dependence for activities of daily living, hospitalization and death.

PREVENTION OF FALLS IN THE ELDERLY IN LTCFS

The studies mentioned in the previous subtitle of this chapter, whether primary or secondary studies, on falls in the elderly demonstrate the importance of understanding risk factors and implementing preventive measures to reduce the impact of falls on the health and preserve the quality of life of this important population, although there are gaps in the literature specifically on the research problem elaborated in this project. that slows down health education for the institutionalized elderly. To combat this problem of high morbidity and mortality among the elderly, health education of this population plays a fundamental role in preparing these individuals to take care of their health in an active and conscious way.

Falls are often neglected by health care staff in institutions for the elderly due to various reasons, such as the fact that the patient does not report the incident, the absence of immediately noticeable injuries, the lack of questioning about the history of falls by health professionals, or even the mistaken belief that falls are inevitable during old age (LOPES et al., 2022). On the other hand, many older adults become more dependent on family support and care, but due to cultural, socioeconomic factors, and instabilities in family arrangements, many end up needing the care offered by Long-Term Care Institutions for the Elderly (LTCF). In view of this reality, it is crucial to understand the factors associated with falls in this specific context, in order to implement measures aimed at prevention, promotion, and rehabilitation of the health of this population.

For institutionalized older adults, the implications for fall prevention are multifaceted. It is essential to consider physical aspects, such as exercise programs to improve balance and muscle strength, as well as environmental adaptations that ensure the safety of spaces used by the elderly. Additionally, it is important to address issues related to mental health, such as the assessment and follow-up of cognitive disorders that may contribute to falls.

Understanding the risk factors for falls mentioned earlier is essential not only for healthcare professionals and caregivers, but for the general population This includes medical conditions such as muscle weakness, balance problems, use of medications that cause dizziness, visual and environmental impairments such as slippery or unsuitable floors. By understanding these factors, it is possible to implement effective preventive measures.

To establish leisure activities, physical exercise, and prevention of falls in the elderly, the management of philanthropic LTCFs relies on few financial resources, especially from professionals, in addition to poor adherence of the elderly to preventive programs (MOURA; SOUZA, 2014), which could be mitigated with the partnership with volunteering and government incentives. There are instruments created by the federal government that seek to identify the needs of institutionalized older adults, in order to establish goals to improve care for this public (BRASIL, 2021). Philanthropic LTCFs depend on resources donated by the community and the provision of services by volunteers to be able to carry out activities aimed at the health and well-being of the elderly (FREIRE et al., 2012).

However, it is important to point out that society in general also needs to mobilize to ensure the well-being of the elderly and prevent them from being institutionalized unnecessarily. This can include public policies that encourage the creation of more home and community care resources. However, when this institutionalization occurs, it is necessary to develop training programs for caregivers, staff, and health professionals who care for the elderly in LTCFs (GHENNA et al., 2022).

EDUCATION STRATEGIES FOR FALL PREVENTION

Educational actions in health comprise the development of actions aimed at education "which results from the dialectical process of experiencing the disease, from the individual to the collective, based on horizontal relationships in which patients are active subjects in the process of knowledge construction" (BITTENCOURT et al., 2021, p. 2). In this sense, by expanding knowledge about fall prevention, several questions emerge about risk factors involved in falls and that require patient awareness combined with methodologies in educational actions, with a view to mobilizing thoughts and attitudes of the care team and patients on this topic.

Health education actions present health professionals with several possibilities of prevention as a strategy to promote the health of the elderly population, both in relation to the themes addressed and the strategies used. Seabra et al. (2019) evidenced the value of health education for this specific population, especially when the exchange of scientific and popular knowledge occurs, because "with the appreciation of mutual knowledge, giving importance to dialogue and increasing the power of understanding of the elderly of themselves, of the other and of the world, expanding the understanding of different realities" (SEABRA et al., 2019, p. 6).

The provision of falls prevention actions also contributes to better health care outcomes for the elderly. This is due to the fact that they are able to maintain a more independent life, carry out their daily activities more safely, and notice an improvement in their overall quality of life. The implementation of guidelines involves actions by non-specialist health professionals as well as specialists, and the design of care pathway services that link primary and community services to specialists where necessary. Therefore, its optimal implementation will require actions at operational level in the health and social care sectors.

There are several strategies that can be implemented in long-term care institutions to prevent falls in institutionalized older adults, including risk assessment (VAISHYA; VAISH, 2020). Conducting regular assessments of the risks of falling for each older adult, taking into account factors such as history of previous falls, mobility, balance, use of medications, vision and hearing problems, among other risk factors.

The creation of a safe physical environment, with adequate lighting, handrails in corridors and stairs, non-slip floors, absence of obstacles and slippery carpets in LTCFs is also essential (NIKITAS et al., 2022). In addition, the availability of a team of trained professionals to assist the elderly in daily activities, such as getting out of bed, walking, bathing, among others. In addition, it is important to closely monitor older adults at higher risk of falling. On the other hand, the promotion of regular practice of physical exercises appropriate to the individual capacities of the elderly, aiming to strengthen muscles, improve balance and motor coordination (LIN et al., 2022). Regular review of medications in use by the elderly in order to identify those that may cause side effects such as dizziness, drowsiness or imbalance, increasing the risk of falls. LTCFs also have the task of education and awareness: Promote the education and awareness of the elderly, family members and caregivers about the risks of falls, prevention measures and the importance of adhering to guidelines and recommendations.

Guidelines aimed at preventing falls are focused on individual and collective actions, but the intended beneficiaries include older adults living in the community and nursing homes, as well as patients admitted to hospitals. However, existing guidelines consider the specific assessment and/or prevention characteristics applicable to older adults with common health conditions associated with a higher risk of falls.

Prevention interventions should also include reviewing the medications used by the elderly, in order to avoid side effects that may increase the risk of falls. Educating caregivers and health professionals about preventive measures and response protocols in the event of falls is also critical to ensure a comprehensive and effective approach to reducing this type of event in LTCFs. These measures not only contribute to the safety and well-being of institutionalized older adults, but also have a positive impact on the quality of services provided by these institutions.

Various intervention strategies and/or a change in the risk factor profiles of those who fall have not been effective in some situations. There are studies that suggest the need for fall prevention to start earlier, and not just in old age. Current fall prevention guidelines focus predominantly on adults over 65 years of age who are at high risk for falls based on the presence of risk factors. While this approach is sound from the point of view of providing care to those with the greatest needs, it ignores the opportunity for early preventive interventions (PEETERS et al., 2018).

Lord and Close (2018) highlight that recent findings on fall risk assessments and prevention interventions have evolved. Downside risk topics include the usefulness of remote monitoring using sensors, smartphone technologies with the potential to generate big data that is currently not yet possible to access and interpret. However, this data could soon be used to provide timely feedback on performance to older people and healthcare professionals. Remote health coaching has the potential to utilize data obtained from sensors and work with older people to encourage adherence to and maintenance of exercise interventions to reduce the risk of falls, without invading privacy or harming older adults. The authors also discuss new exercise approaches to fall prevention, including dual-task training, cognitive-motor training with exergames, and reactive step training. Additional fall prevention strategies considered further include fall prevention in older adults with dementia and Parkinson's disease, fall prevention medications, and safe floors to prevent fall-related injuries.

LTCF staff and health professionals can help prevent falls by monitoring the environment and assisting them in activities that may be risky. If a fall occurs, it is important to seek immediate care to assess the severity of the injury and ensure appropriate treatment. However, depending on the severity of the resulting injury, it may be necessary for the elderly person to be hospitalized and, in some cases, it may be necessary for them to be institutionalized in an LTCF (MAGALHÃES et al., 2023).

They should be trained on safe transfer techniques, the use of assistive devices such as canes and walkers, proper supervision during risky activities, and the importance of maintaining a safe environment. Additionally, education on the importance of regular physical activity to strengthen muscles and improve balance is also key.

FALL RISK ASSESSMENT EDUCATION

Health education also addresses specific issues related to aging, such as the prevention of falls and the appropriate use of medications. By acquiring this knowledge, older adults can make informed decisions about their health and actively seek self-care (MAGALHÃES et al., 2023). On the other hand, health education for older adults is not only limited to providing information but also involves promoting practical skills such as the ability to manage chronic diseases, the correct use of health equipment, and the search for social support.

Health professionals, including physiotherapists, nurses, occupational therapists, pharmacists, physicians, social workers, psychologists, and allied professionals, should receive adequate training and continuing education in fall risk assessment. This involves identifying individual risk factors, conducting balance and mobility assessments, and developing personalized care plans for each senior. The use of standardized fall screening tools can help with this process.

The Comprehensive Geriatric Assessment (AGA) increases diagnostic accuracy by estimating the risk of falls in the elderly (APPEADU; BORDONI, 2023). An interprofessional team should be involved, including professionals who specialize in Internal Medicine, Geriatrics, Orthopedics, Cardiology, Physical Medicine and Rehabilitation, Endocrinology, Neurology, Family and Community Medicine, Nursing, Physical Therapy, Occupational Therapy, Speech Therapy, and Psychology.

The flexible application of recommendations and guidelines to combat falls in older adults will support the satisfaction of the different needs of individuals with varying characteristics and priorities and who reside in diverse settings with varying availability of resources, and are consistent with the person-centred approach. According to Montero-Odasso et al. (2022), the strategies referred to need to contain predictive value, using available information to determine an individual's risk of falls and fall-related injuries, but also the preventive dimension, focused on the intention to prevent falls and related injuries, while optimizing functional capacity. The guidelines also need to have a participatory nature, with goals and intervention plan developed in collaboration with the elderly, and others who wish, to consider priorities, values and resources, such as support for the caregiver.

Understanding falls as adverse events and analyzing them carefully, in a multidisciplinary manner, is the best way to prevent their occurrence for patient safety. Attention to patient safety also consists of providing methods and instruments that support professionals in the search to elucidate the genesis of these events, as well as the possible factors that contribute to their occurrence.

PROMOTING AWARENESS OF THE RISK OF FALLS AMONG THE ELDERLY

The elderly themselves should be educated about the risks of falls and strategies for prevention. This may include educational sessions on muscle strengthening and balance exercises, adaptations in the home environment to reduce the risk of falls, and guidance on the proper use of assistive devices. Additionally, it is important to encourage seniors to report any falls or safety-related concerns to healthcare providers.

The World Health Organization (WHO) emphasizes the importance of prevention strategies, including assessment and intervention in individual risk factors, as well as environmental adaptations to reduce the incidence of falls and minimize their consequences. Education aimed at preventing falls

is a low-cost strategy, less intense in terms of activities, but extremely effective in reducing the incidence of falls among the elderly (MONTERO-ODASSO et al., 2022).

Thus, initiating the process of awareness through education is decisive. This will increase the elderly's understanding of the risks of falls, allowing preventive measures to be adopted early. In addition, identifying gaps in seniors' knowledge is the first step in offering personalized and appropriate instruction. All elderly people should be instructed on fall prevention and physical activity.

Understanding, perspectives, and behaviors regarding fall prevention among older adults contribute significantly to the identification of fall risks and proactive involvement in fall prevention efforts. However, studies have demonstrated the continued existence of disparities in knowledge, attitude, and practice in preventing falls among older adults, even in developed countries (TANG et al., 2023). Therefore, health education interventions and fall prevention services should be carried out to improve the knowledge, attitudes, and practices, both in the community and in institutions, of fall prevention for the elderly, in order to reduce the burden of falls in this population. The daily life of frail older adults requires frequent estimates of the risk of falls and the ability to avoid them. There are many possible channels to reach older people with information about fall risk and fall prevention, including the media and their own peers.

Clinical experience suggests that older people spontaneously take precautions to prevent falls, for example, not climbing on benches when picking up something from a tall cabinet. These precautions serve as protective measures against falls, but some older adults develop a self-imposed restriction of normal activities, even without any real danger of falling. Still, there are probably many precautions older people can take to prevent falls without requiring major adjustments to their behavior or environment.

To encourage older adults to better manage their daily risk of falling, a self-management approach can be used (POHL et al., 2015). Self-management programs often include components to empower people, develop problem-solving skills, and plan appropriate actions. To optimize the conditions of self-management in relation to fall prevention, it is necessary to identify what people are actually doing to reduce the risk of falls in their daily lives and what changes they are prepared to make. By including older people in the discussions, they can identify and broaden their understanding of their own choices in everyday life that can help them avoid falls, what causes these behaviors and the processes that involve their decisions.

However, although fall prevention involves the role of the elderly themselves in reducing exposure to fall risks, they often do not recognize themselves as vulnerable and do not identify the risks to which they are exposed. Therefore, a situational diagnosis needs to be made in all contexts.

In addition, this prevention needs to become a motivating strategy for them to collaborate and exercise self-care (SÁ et al., 2020).

CONTINUOUS EVALUATION AND UPDATE OF FALLS PREVENTION GUIDELINES

Preventing falls in older adults in long-term care facilities requires an ongoing and adaptive approach. Prevention protocols should be evaluated regularly, and the latest evidence-based practices should be incorporated. Additionally, it is crucial to maintain an organizational culture that values the safety of residents and fosters collaboration among all those involved in the provision of care.

One of the main patient safety goals proposed by the National Health Surveillance Agency (ANVISA) through the National Patient Safety Program (PNSP), according to the Ministry of Health Ordinance No. 529, of April 1, 2013 (BRASIL, 2013). The Ministry of Health highlights several measures to prevent falls, such as the implementation of a fall risk assessment program, both related to the person and the environment; personalization of fall prevention for each patient based on screening or assessment; educating patients and their companions about the risks of falls in accessible language; ensuring the use of non-slip footwear during ambulation; attention to the use of medications and their interactions; periodic and systematic assessment of patients' risk factors for falls and efficient communication of results; and maintaining a safe environment, including good lighting, grab bars in bathrooms, and beds with adequate height so that patients can rest their feet on the floor. These measures are essential to ensure the safety and well-being of older adults in healthcare settings.

A global report emerged from the WHO Technical Meeting on Falls Prevention in Old Age, held in Vitoria, Canada, in February 2007, including international and regional perspectives on issues and strategies related to the prevention of falls in the elderly (WHO, 2007). A World Falls Guidelines Task Force, or originally, *Global Falls Guidelines Task Force* (WFG) was created after discussions in 2019 between 14 international experts and geriatrics and gerontology societies to reflect on new evidence and challenges of this global problem. According to the WFG guidelines, published in 2022 (MONTERO-ODASSO et al., 2022), it is recommended to adopt a person-centered approach, taking into account the perspective of the older adult and their experience with caregivers. This proposed algorithm has two avenues of entry: timely detection during clinic visits or through electronic health records, as well as when older adults seek health services due to falls or related injuries. Three key questions, known as 3KQ (3 *key-questions*), show high sensitivity in predicting the risk of further falls in the elderly: (1) Have you had any falls in the last year? (2) Do you feel unsteady when you are standing or walking? and (3) Are you worried about falling? These questions are crucial for assessing the risk of falls in older adults and can assist in the implementation of appropriate preventive measures.

The Falls Prevention Protocol, part of the National Patient Safety Program (PNSP), organized by the Ministry of Health, the National Health Surveillance Agency and the Oswaldo Cruz Foundation, was created to contribute to the qualification of health care in all health establishments in the national territory. Patient Safety is one of the essential elements of excellence in medical care and has stood out globally as a key priority for patients, their families, administrators, and healthcare professionals. This emphasis is aimed at ensuring that the care provided is safe and reliable for everyone involved. This protocol establishes the need for multidisciplinary care and determines actions to educate patients and family members, including the use of educational materials (BRASIL, 2013). The use of these materials should be encouraged, as well as it is important to evaluate their results later in order to confirm their effectiveness and multiply them with similar audiences.

Nurses play a key role in assessing the risk of falls and planning preventive measures for at-risk patients. Once this risk has been identified, it is crucial to communicate the information to patients, their families, and the multidisciplinary care team. Warning signs for the risk of falls may include the use of identification bracelets, bedside signs, alerts in medical records, nursing prescriptions, and shift change forms. For patients at high risk of falls, it is necessary to have a companion present, and if this is not possible, it is important to call the Social Service to take the necessary measures. These actions are critical to ensuring the safety and well-being of patients in healthcare settings.

Assessment of the risk of falls should be performed during patient admission, using a scale appropriate to the profile of patients in the institution. This assessment should be repeated daily until the patient is discharged. In addition, at the time of admission, it is important to assess the presence of factors that may increase the impact of a fall, such as an increased risk of fractures and bleeding. Conditions such as osteoporosis, a history of previous fractures, use of blood thinners, and blood problems are examples of factors that can aggravate the consequences of a fall. These initial assessments are crucial for identifying and mitigating the risks associated with falls, ensuring safer and more effective care for patients.

In the context of "Falls in the Elderly", the Guidelines Project[3] (BUKSMAN et al., 2008) has developed specific recommendations and guidelines to assist clinicians' clinical reasoning and decision-making, including fall risk assessments, prevention strategies, management of patients after a fall, identification of risk factors, and interventions to reduce the impact of falls on older adults. These guidelines are based on up-to-date scientific evidence prepared by experts in the field of geriatrics and gerontology.

[3] The Guidelines Project is a joint initiative of the Brazilian Medical Association (AMB) and the Federal Council of Medicine (CFM) that aims to standardize medical conduct in Brazil.

LTCFs, as governmental or non-governmental institutions, of a residential nature, intended for the collective home of people aged 60 years or over, with or without support, have operating rules established in the Resolution of the Collegiate Board (RDC) No. 502, of May 27, 2021 (BRASIL, 2021). When a fall occurs in an LTCF, RDC 502 recommends in its Article 55 that "The institution shall immediately notify the local health authority of the occurrence of sentinel events", such as falls with injury. This situation must be registered through the Adverse Event Notification Form, made available by the Center for Quality and Patient Safety. The patient should be evaluated and assisted immediately to minimize possible harm.

The analysis of fall cases within the institution allows the identification of the factors that contributed to the adverse event, providing learning to improve care processes, making them safer. The Permanent Commission on Quality Health Care and Patient Safety Protocols must ensure that professionals understand that fall notifications are not punitive, but educational, with a view to improving the care provided to the elderly.

This approach is crucial to foster a culture of continuous learning and improvement in the quality of care provided to LTCF residents. In this sense, according to the Finnish authors Kiljunen, Kankkunen, and Välimäki (2023), they consider the importance that both "near misses" and adverse events resulting from falls should be reported in organizations so that there is learning from safety incidents. It is essential to ensure the accuracy of the data used to inform accident prevention strategies in long-term care facilities.

FALL RISK STRATIFICATION

Assessment policies and protocols consider a risk classification. The Falls Prevention Protocol (BRASIL, 2013) classifies that the patient at high risk of falling is an independent patient who moves and performs his activities without the help of third parties, but has at least one risk factor, as well as the patient who depends on the help of others to perform his activities, with or without the presence of any risk factor, and those who walk with the aid (of a person or device) or move around in a wheelchair, and patients accommodated on a stretcher, for example, waiting for exams or transfer, with or without the presence of risk factors. According to the same protocol, patients at low risk of falling are considered to be those who are bedridden, bedridden, completely dependent on the help of others, with or without risk factors common among elderly people over 75 years of age, such as altered balance and muscle strength. 2014).

The use of risk scales to identify the probability of falls is essential to guide patient-centered nursing care. This allows targeted interventions to be carried out to prevent or reduce falls in LTCF and hospital settings (FALCÃO et al., 2019). The use of specific instruments also contributes to the planning and direction of care in a personalized way, according to the individual needs of each

patient, according to risk assessment. In Brazil, the Morse Falls Scale (NDE) is widely used in healthcare institutions due to its easy applicability. Falls can be classified into three types: accidental (when the patient slips or trips, often due to environmental factors), early physiological (predictable, with signs indicative of fall risk) and unanticipated physiological (unpredictable, associated with fainting, seizures, hip fractures, etc.). The Morse Scale is especially useful for predictable falls.

Timely discovery of cases of risk of falls is recommended for community-dwelling older adults, but for people considered to be at high risk, a comprehensive multifactorial assessment of fall risk should be offered, with a view to co-designing and implementing personalized interventions across multiple domains. Other recommendations cover details of assessment and intervention components and combinations, and recommendations for specific settings and populations (MIRANDA et al., 2017).

A single assessment or a set of assessments performed to rate an individual's risk of falling, to guide what additional assessments or measures may be required. These measures should not only refer to those provided for in the legislation, but also to effective and appropriate measures for each institution to reduce avoidable complications in LTCFs.

FINAL THOUGHTS

Education for the prevention of falls in elderly people living in long-term care institutions is a topic of extreme relevance and complexity. During the development of this chapter, a number of key strategies and approaches to promote the safety and well-being of older persons in this specific context have been explored.

The importance of identifying the risk of falls through risk stratification, knowledge of the profile of elderly residents, and assessments with specific scales. This approach allows for early and targeted intervention aimed at reducing incidents of falls and their negative consequences. It is important to emphasize the need to strictly follow the legislation on patient safety, ensuring quality and care standards that protect the elderly from unnecessary and avoidable risks, but not limited only to normative aspects.

Educational interventions play a central role in the prevention of falls in the elderly in LTCFs, emphasizing the importance of continuing education programs for employees and health teams of the institutions. Programs are needed that not only train professionals to deal with situations of risk of falls, but also that promote a culture of safety and prevention within institutions.

Another crucial point is the need to focus on prevention from an early stage of aging. Health promotion strategies, physical activities, environmental adaptations, and medication review are essential to maintain quality of life and reduce the risk of falls as the elderly age.

Finally, the importance of training and continuing education of employees and health staff of long-term care institutions is emphasized. The development of technical skills and awareness of safety issues are essential pillars to provide a safe and welcoming environment for the elderly. The participation of elderly residents is essential, as their adherence to safety procedures strongly contributes to the success of preventive measures, in addition to strengthening their own autonomy.

Education for the prevention of falls in older adults living in long-term care institutions requires a multidisciplinary, proactive approach that is committed to the quality of life and safety of these individuals who are so important in our society. Therefore, education plays a central role in preventing falls in older adults in long-term care facilities. By empowering healthcare professionals, caregivers, and seniors with the necessary knowledge and skills, we can significantly reduce the impact of falls and improve the quality of life for seniors.

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